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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,091	12/14/2001	Ruggero Maria Santilli	3293.023	9972

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EXAMINER

PARSONS, THOMAS H

ART UNIT PAPER NUMBER

1745

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,091

Applicant(s)

SANTILLI, RUGGERO MARIA

Examiner

Thomas H Parsons

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-55 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- Don Valentine*
- I. Claims 1-10, drawn to an apparatus for increasing a specific density and an energy content, classified in class 204, subclass 194.
 - II. Claims 11-20, drawn to an apparatus for increasing a specific density and an energy content, classified in class 141, subclass 47.
 - III. Claims 21-23, drawn to an apparatus for increasing a specific density and an energy content, classified in class 204, subclass 278.
 - IV. Claims 33-⁴²~~34~~, drawn to a method for increasing specific density and energy content of a gas, classified in class 205, subclass 673.
 - V. Claims 43-⁵²~~53~~, drawn to a method for increasing specific density and energy content of a gas, classified in class 141, subclass 4.
 - VI. Claims 53-55, drawn to a method for increasing specific density and energy content of a gas, classified in class 205, subclass 637.
 - VII. Claims 24-27, drawn to a method of increasing voltage power and efficiency of a fuel cell, classified in class 429, subclass 13.
 - VIII. Claims 28-³~~37~~, drawn to a method of operating an internal combustion engine, classified in class 123, subclass 1A

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions have different modes of operation. Invention I comprises a means for delivering an electric current to a pair of electrodes capable of delivering an electric arc within a piping system filled with a gas; Invention II comprises means for delivering an electric current to a solenoid acting on a piping system filled with a gas; Invention III comprises a means for delivering electric power to a pair of electrodes configured to create a submerged electric arc in a liquid feedstock.
3. Inventions IV, V and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions have different modes of operation. Invention IV comprises delivering an electric current to a pair of electrodes capable of delivering an electric arc within a piping system filled with a gas; Invention V comprises delivering an electric current to a solenoid acting on a piping system filled with a gas; Invention VI comprises delivering electric power to a pair of electrodes configured to create a submerged electric arc in a liquid feedstock.
4. Inventions I and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another

materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus can be used to practice another and material different process such as liquid waste treatment to remove foreign material or water purification.

5. Inventions IV and VII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions have different effects and modes of operation. Invention IV increases the specific density an energy content by delivering electric power to a pair of electrodes configured to create a submerged electric arc in a liquid feedstock whereas Invention VII increases voltage power by operating a fuel cell with a processed gas having an increased specific density and energy content wherein gas processing is not limited to any particular method.

6. Inventions VII and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions have different effects and mode s of operation. Invention VII increases voltage power by operating a fuel cell with a processed gas having an increased specific density and energy content wherein gas processing is not limited to any particular method. Invention VIII decreases the need for atmospheric oxygen by operating an internal combustion engine with

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a processed fuel made from a process hydrogen gas having an increased specific weight and energy content.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

If the Applicant chooses the Invention of Group I, II or III, the Examiner will examine the Invention of Group III, IV or V, respectively as the search for

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement may be traversed (37 CFR 1.143).

If the Applicant chooses the Invention of Group I or III, the Examiner will examine the Invention of Group IV or VI, respectively, as the search required for Group I appears to be required for Group IV, and the search required for Group III appears to be required for Group VI.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas H Parsons whose telephone number is (703) 306-9072.

The examiner can normally be reached on M-F (7:00-4:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (703) 308-2383. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Thomas H Parsons
Examiner
Art Unit 1745



Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700